

FDJH 16.361 (100794-11286)
09/398,106REMARKS

This amendment is in response to the Examiner's Office Action dated 4/19/2004 and further in view of the in-person interview of 07/01/04. Applicant is appreciative for the recognized allowable subject matter. This amendment should obviate outstanding issues and make the remaining claims allowable. Reconsideration of this application is respectfully requested in view of the in-person interview of 07/01/04, the foregoing amendment, and the remarks that follow.

STATUS OF CLAIMS

Claims 1-11 are pending.

Claim 10 is allowed.

Claims 1, 2, 9, and 11 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Petch (USP 6,243,372).

Claims 3-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

OVERVIEW OF CLAIMED INVENTION

The presently claimed invention provides for a synchronization protecting and setting apparatus and method wherein the invention comprises: a first means for generating a first detecting window covering a position of a predetermined pattern provided in a reception signal received at the radio base station; a second means for generating a second detecting window, which covers the position of the predetermined pattern within the first synchronized word detecting window; a means for detecting the predetermined pattern in the first or second

Page 9 of 13

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FUJH 16.361 (100794-11286)
09/398,106

synchronized word detecting window; and a control means for resetting the position of the second detecting window relative to the first detecting window under a predetermined condition, wherein synchronization is detected by checking coincidence of the reception signal with the predetermined pattern in the first detecting window at a first frame and the detecting means detects synchronization in the set second detecting window at a subsequent frame.

In the Claims

REJECTIONS UNDER 35 U.S.C. §102(e)

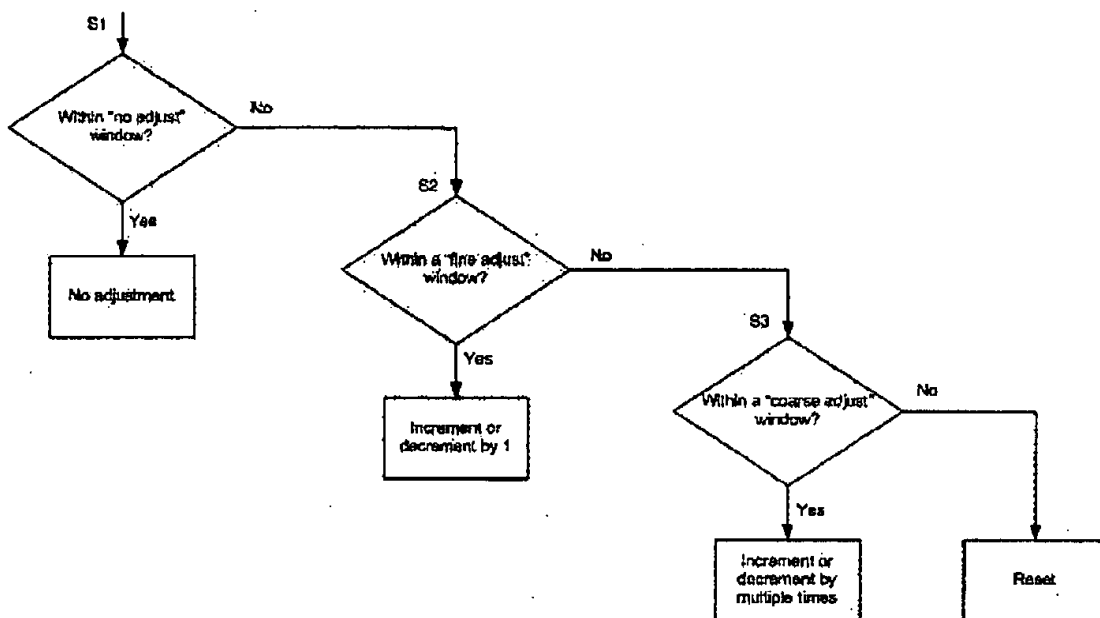
The examiner has rejected claims 1, 2, 9, and 11 under 35 U.S.C. §102(e) as being anticipated by Petch (USP 6,243,372). To be properly rejected under 35 U.S.C. 102(e), each and every element of the claims must be provided within a single reference. Applicants' contend, and as was shown during the in-person interview of 07/01/04, that Petch fails to provide for many of the limitations of claims 1, 2, 9, and 11.

Petch describes a system where end-to-end synchronization between a mobile station and a respective base station is maintained during an established communication link by early/late analysis of timing pulses. The mobile station adjusts timing and output frequency of the mobile station master clock and codec to maintain the synchronization based on the timing pulses. The office action refers to column 8, lines 15-45 of the Petch reference to provide for many of the limitations. A detailed analysis of the citations, and the Petch reference in its entirety, is provided below, specifically illustrating the failure of the Petch reference to either explicitly or implicitly address many of the limitations of claims 1, 2, 9, and 11. Applicants' wish to note that many of these points were made in the in-person interview of 07/01/04 (and as supported by the interview summary detailed by the examiner).

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FUJH 16.361 (100794-11286)
09/398,106

Petch, in column 8, lines 15-45, describes a plurality of overlapping windows that are used to regulate data transmission and reception. Specifically, if the timing pulse falls within a "no adjust" window, no adjustment is made in the counter. If the timing pulse falls outside the "no adjust" window but within a "fine adjust" window, the internal counter is incremented or decremented by one count. If the timing pulse falls the "fine adjust" window but within a coarse adjust window, the counter is incremented or decremented multiple times. Lastly, if the timing pulse falls outside the coarse adjustment window, the counter is reset to an initialized state. The figure below summarizes the method as described in Petch.



First, in step S1, the Petch method sees if the timing pulse falls within a narrow "no adjust" window, and if so, no adjustment is needed in the counter. If the timing pulse does not fall within the narrow "no adjust" window, another check is made in step S2 to see if the pulse

e

FUJH 16.361 (100794-11286)
09/398,106

falls outside the narrow "no adjust" window, but within a wider "fine adjust" window. If the timing pulse falls within the narrow "fine adjust" window, the counter is incremented or decremented by 1. If the timing pulse does not fall within the wider "fine adjust" window, another check is made in step S3 to see if the pulse falls outside the wider "fine adjust" window, but within an even wider "coarse adjust" window. If the timing pulse falls within the wider "coarse adjust" window, the counter is incremented or decremented multiple times, else the counter is reset.

Hence, it can be seen that Petch starts out with the narrowest window first (as in S1 in the above figure) and moves on to a wider window (as in S2 and S2 in the above figure). Unlike Petch, the present invention starts the synchronization process with a wider window first and proceeds to use narrower windows. Applicants' claims require the second detecting window to be within the first detecting window, a teaching that is neither explicitly nor implicitly suggested in Petch

Furthermore, Petch teaches the use of overlapping static windows (i.e., no adjust window, fine window, and coarse window). In stark contrast, the present invention teaches resetting the position of a second window relative to a first window under a predetermined condition as defined in independent claims 1, 9, and 11, a teaching that is neither explicitly nor implicitly suggested in Petch. This is also described in applicants' specification in, for example, page 8, lines 23 to page 9, line 18. Predetermined conditions are also recited in claims 3-8.

Applicants' claimed invention also teaches the detection of a predetermined pattern within a second narrow window (narrow in relation the first window) using a subsequent frame, when the predetermined pattern was previously detected using a first frame within a first wider window, a teaching that is neither explicitly nor implicitly suggested in Petch.

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FUJH 16.361 (100794-11286)
09/398,106

Hence, based on the arguments presented above and based on the arguments presented in the interview of 07/01/04, applicants' contend that the Petch reference fails to provide for many of the limitations of the amended claims. Applicants' believe that this case is in condition for allowance and hereby respectfully request the examiner for reconsideration and early issuance.

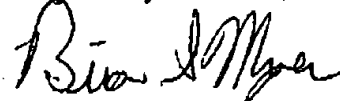
SUMMARY

As has been detailed above, none of the references, cited or applied, provide for the specific claimed details of applicant's presently claimed invention, nor renders them obvious. It is believed that this case is in condition for allowance and reconsideration thereof and early issuance is respectfully requested.

As this amendment has been timely filed within the set period of response, no petition for extension of time or associated fee is required. However, the Commissioner is hereby authorized to charge any deficiencies in the fees provided to Deposit Account No. 50-1290.

If it is felt that an additional interview would expedite prosecution of this application, please do not hesitate to contact applicant's representative at the below number.

Respectfully submitted,



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